AN INTRODUCTION TO SAFETY CONSCIOUS PLANNING PRACTICE - Course Outline

Day 1 - May 13, 2003

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8:30 - 8:45	Introduction and Outline of Course	
8:45 – 9:30 Session 1	Definitions of Safety how to differentiate between safety and security collision counts and their randomness basic principles of safety engineering	Geni Bahar
9:35 – 10:35 Session 2	How to Measure Safety reported and reportable collisions how to account for exposure how to use actual collision counts and determine expected frequency	Geni Bahar
10:35 – 11:00	Break	
11:00 – 12:00	Safety Performance Functions Definitions and Applications	Geni Bahar
Session 3	what are SPFs how to apply SPFs what is needed to develop SPFs	
12:00 – 1:00	Lunch	
1:00 – 2:00 Session 4	Introduction to Human Factors how human factors engineering started human characteristics that impact driving human factors causes of traffic collision: are bad drivers the problem?	Alison Smiley
2:00 – 2:15	Break	
2:15 – 3:15 Session 5	Driver Vision foveal and peripheral vision, night adaptation acuity, contrast sensitivity, colour vision night visibility	Alison Smiley
3:15 – 3:30	Break	
3:30 – 4:30 Session 6	Driver Information Processing driver attention, limitations in information processing visual search during driving	Alison Smiley

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Day 2 - May 14, 2003

Geni Bahar 8:30 - 9:30**Speed and Safety** Session 7 relationship between speed and collision frequency relationship between speed and collision severity implications in standards and guidelines 9:35 - 10:35**Driver Adaptation to the Road Alison Smiley** Session 8 how drivers adapt response to safety countermeasures using adaptation to control speed ITS and adaptation 10:35 - 11:00 Break 11:00 - 12:00 Work Zones **Alison Smiley** Session 9 Accident statistics driver merging behavior signing and delineation speed control work zone case study 12:00 - 1:00 Lunch 1:00 - 2:00**Applying Accident Modification Factors** Geni Bahar Session 10 the definition of AMFs the application of AMFs the development of AMFs 2:00 - 2:15**Break** 2:15 - 2:45**SPF & AMF Application for Case Study** Geni Bahar Session 11 how to estimate the potential benefit for safety improvement how to calculate the expected safety after improvement how to assess the expected B-C ratio 2:45 - 3:00**Break** 3:00 - 4:30 **Accident Case Studies Alison Smiley** Session 12 urban arterial: car/tractor trailer urban freeway: stopped vehicle

> urban arterial: car/motorcycle suburban arterial: pedestrian suburban arterial: child bicyclist urban arterial: emergency vehicle



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Day 3 - May 15, 2003

8:30 – 9:30 Human Factors Issues at Intersections Alison Smiley

Session 13 driver demands in intersections

typical driver errors

traffic signals and the dilemma zone

pedestrian concerns

9:30 – 10:40 Intersection Planning Choices and Safety Geni Bahar

Session 14 intersection density

intersection layout and geometrics intersection traffic control devices

10:40 - 11:00 Break

11:00 – 11:45 Case Studies Alison Smiley

Session 15 urban intersection : teenage driver/ signal visibility urban arterial: car/motorcycle

urban intersection: bicyclist

11:45 - 12:00 Course Summary